

# Software >>>

## Software Configuration

### Measuring Machines



CONTURA



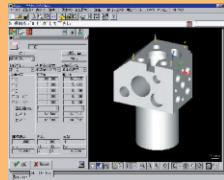
PRISMO Series



UPMC-CARAT

### Standard Software

#### Calypso



CAD I/F option  
 Hole pattern best fit  
 Threaded hole measurement option  
 Calypso - CURVE  
 CURVE ASCII input/output  
 Calypso - TIMS conversion  
 IGES/DXF conversion  
 DIMENSION  
 HYPER STATIS

### Optional Software

HOLOS - NT2.0  
 - Light Plus  
 - Extension  
 - GEO  
 - Digitize  
 TESCART 32  
 Calypso CURVE (manual)  
 Calypso text data output  
 DMIS post processor

#### UMESS/LX



KUM/LX contour measurement  
 GON/LX gear measurement  
 DIMENSION  
 HYPER STATIS  
 Threaded hole measurement option  
 KUM-TIMS conversion  
 IGES/DXF conversion  
 DMIS post processor  
 Data transfer program (DCOM)

HOLOS - NT2.0  
 - Light Plus  
 - Extension  
 - GEO  
 - Digitize  
 TESCART 32

Bevel-Pro bevel gear measurement (RT required)  
 Involute-Pro gear measurement (RT required)

### Measuring Machines



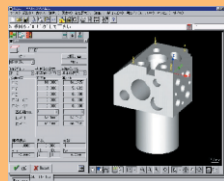
SVA-A



RVF-A

### Standard Software

#### Calypso

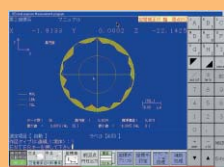


CAD I/F option  
 Hole pattern best fit  
 Threaded hole measurement option  
 Calypso - CURVE  
 CURVE ASCII input/output  
 Calypso - TIMS conversion  
 IGES/DXF conversion  
 DIMENSION  
 HYPER STATIS

### Optional Software

HOLOS - NT2.0  
 - Light Plus  
 - Extension  
 - GEO  
 - Digitize  
 TESCART 32  
 Calypso CURVE (manual)  
 Calypso text data output  
 PH9/10 list calibration option

#### XYANA2000



Geometric deviation option  
 Position deviation best fit  
 Threaded hole measurement option  
 Inscribed and circumscribed circles option  
 Fundamental rules of arithmetic calculation option  
 TESCHART  
 DMIS compatibility

Contour measurement program  
 - Manual measurement  
 - Automatic measurement  
 - Evaluation function

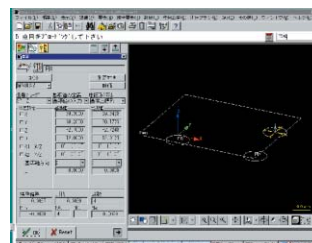
Chinese language display

# 3D Coordinate Measuring Machine Software

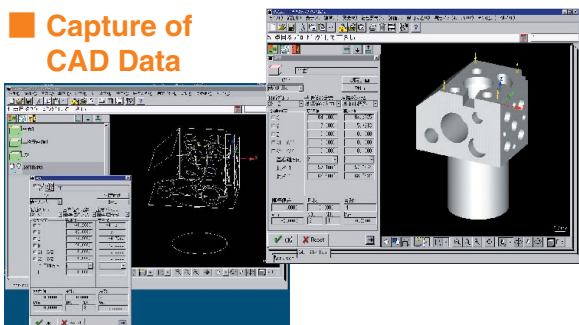
## Calypso Versatile Measuring Program AI Function

- Calypso is an advanced software package developed by CARL ZEISS. It runs on Windows 2000/NT to provide a new measuring environment.
- Superior graphic functions and AI functions (element auto judgment, coordinate system auto setting) are standard features.
- Captures CAD data (IGES, VDAFS, STEP, SAT, CATIA, Pro-Engineer, Unigraphics, IDEAS) to create the measuring procedure (simplified off-line teaching) on the CAD element.

The AI function automatically recognizes the geometric profile by means of direct probing measurement, eliminating the necessity of entering the judgment item.



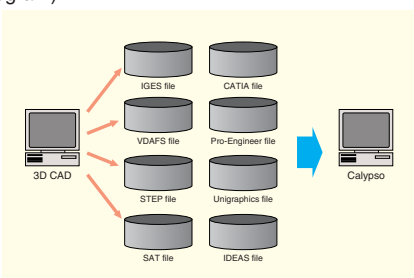
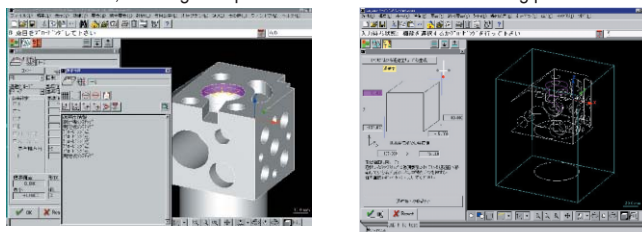
## Capture of CAD Data



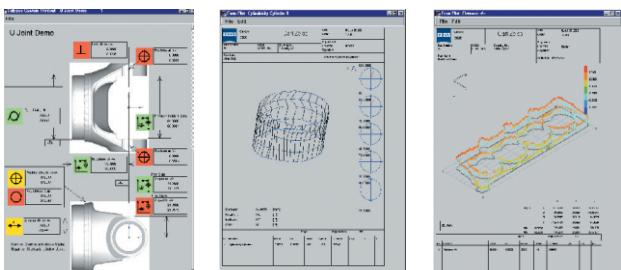
Captures 3D CAD model and allows manipulation in window. (same procedure can be used with HOLOS free curved surface measuring program)

## Automatic Generation of Measuring Path

The measuring path is automatically generated by determining the conditions for the safety refuge surfaces, supplementary refuge surfaces, measuring points and probing return distance. The by-pass points and probing points can be arbitrarily determined in the measuring elements and between elements, allowing the operator to create the ideal measuring path.

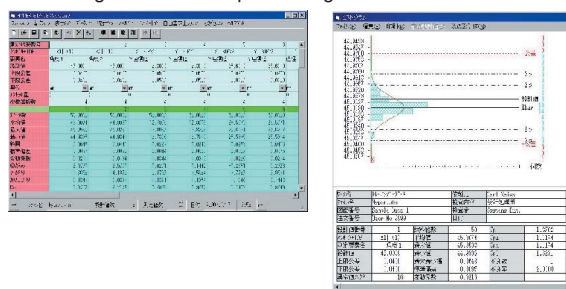


## Variety of Printouts



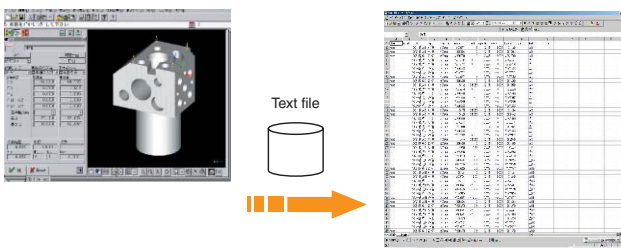
## HyperStatis Statistical Processing Program

This program enables compiling of measured data into a database for editing and statistical processing.



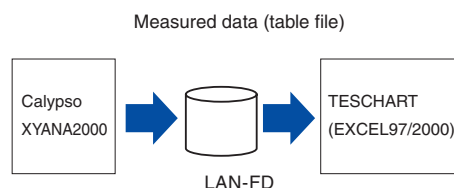
Tables and graphs generated with HyperStatis can be pasted into Excel and Word documents, and Excel and Word can be used to output statistical values in the desired format. There is a simplified Excel export function. Other features include real-time analysis and automatic output (printing) processing.

## Text Data Output Option Program (Calypso)



Output to text file in tab format since measured results are imported into Excel. Data is inserted in cells when tab-delimited text is imported into Excel.

## TESCHART Test Chart Generation Program



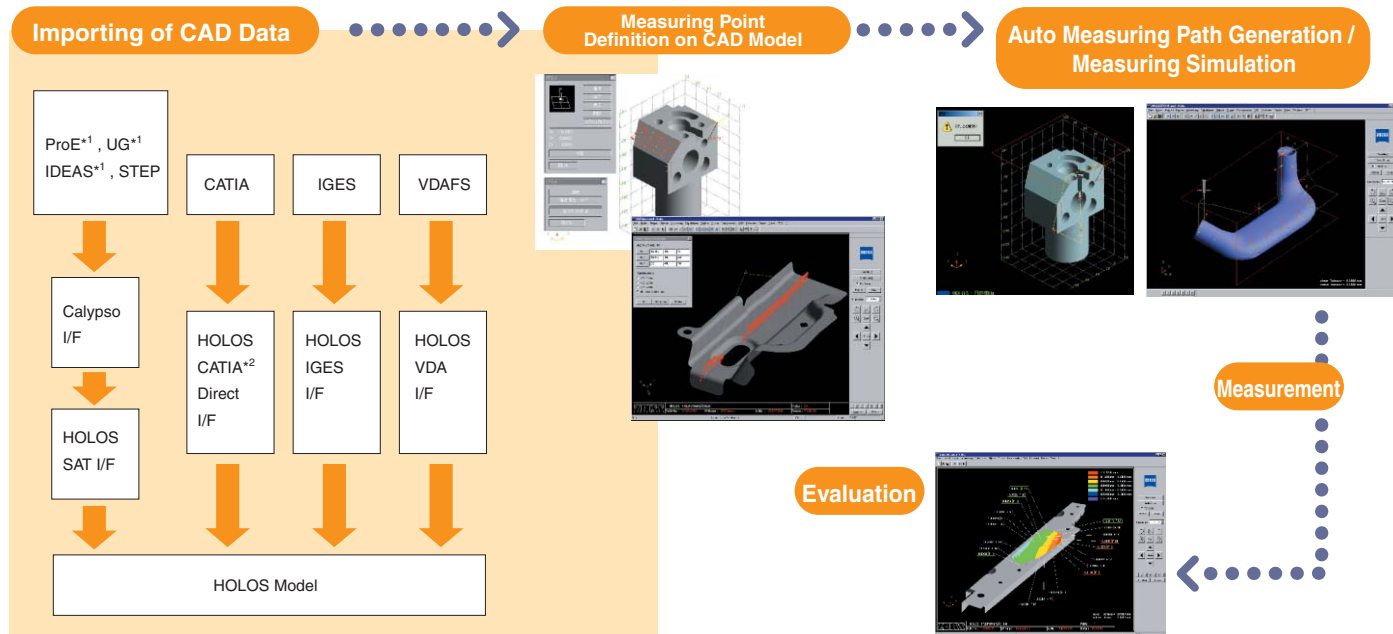
This is an add-in program that allows measured results to be captured in Excel and test charts to be generated. It simplifies tolerance judgment/diagram insertion/graph generation. File transfer can be performed using LAN/FD. Can be used as Calypso and XYANA 2000 data.

# Software >>>

## HOLOS : Free Curved Surface Measuring/Digitizing Program

HOLOS enables digitizing of unknown free curved surface, and it can be made comparison between design values with a CAD model and measured values of free curved surfaces.

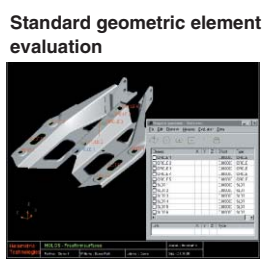
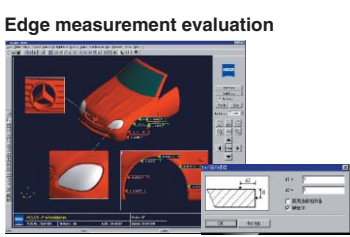
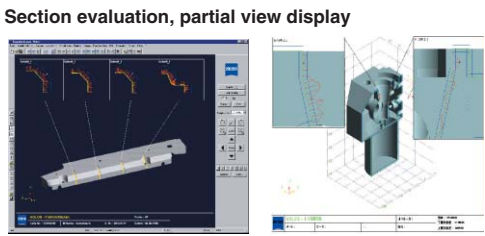
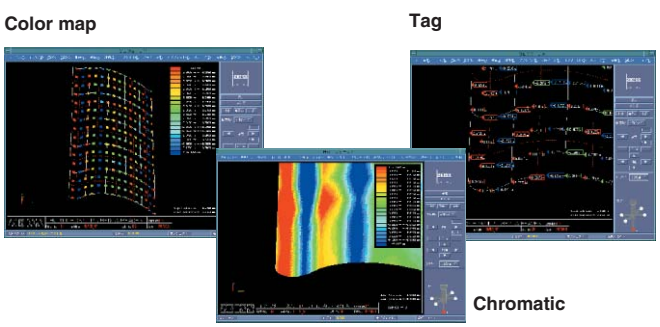
The 3D best fit function is used to set the coordinate system.



\*1: CAD license required for Calypso I/F. \*2: CATIA Direct I/F is optional.

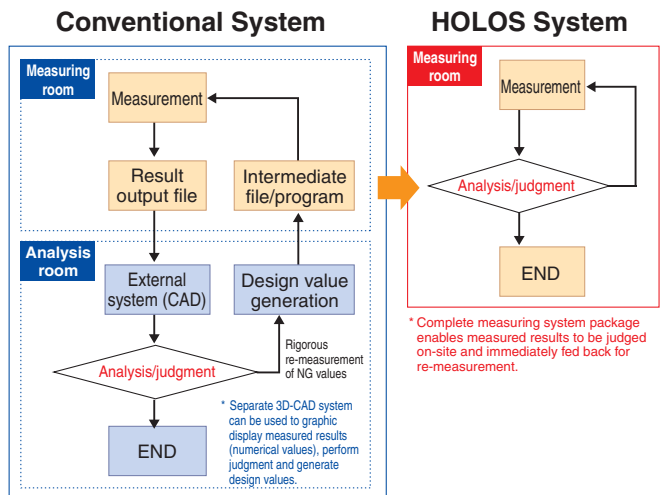
### Merit 1 of Using HOLOS

Extensive graphic functions simplify collation of measured data and CAD data. This enables intuitive evaluation of measured results.



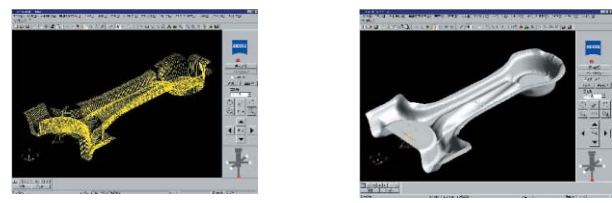
### Merit 2 of Using HOLOS

Measurement, result output, analysis/judgment and re-measurement feedback can be performed in real time.



### Digitizing function

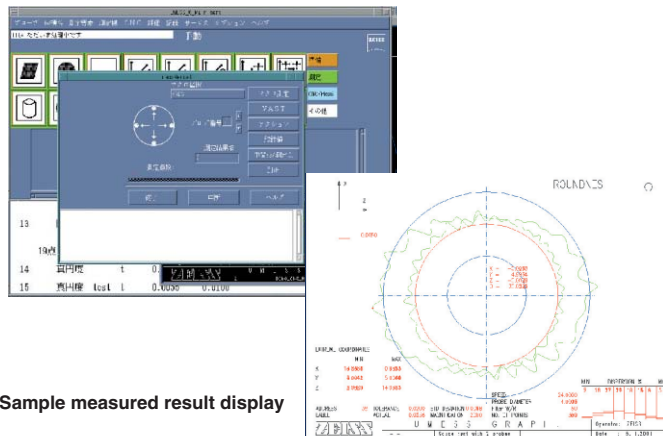
Required surfaces for CAD can be generated from group point data.



3D Coordinate Measuring Machines

## UMESS : Versatile Measuring

UMESS performs manual or automatic measurement of points, lines, surfaces, circles, ellipses, cylinders, cones, spheres and other basic geometric elements, and allows evaluation and output of dimensions and locations.

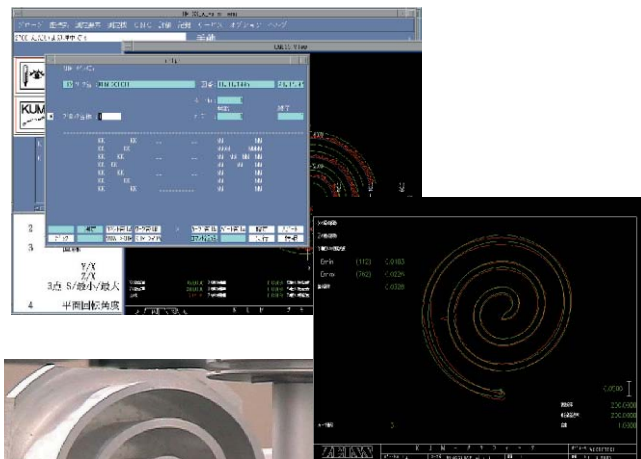


Sample measured result display

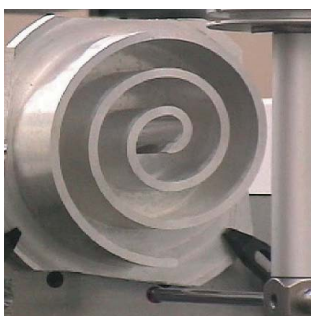
Enables evaluation of roundness, parallelness, positioning, squareness and concentricity. The desired process is chosen by selecting the appropriate icon, providing an operating environment that is easy to understand for all personnel, including beginners.

## KUM : Profile Measuring Program

KUM facilitates measurement and design value collation of known and unknown profiles. The measured data is output as normal direction error with respect to the design values. When the error is offset due to deviation of the standard, two-dimensional best fit can be used to remove the error from the inappropriate measuring standard for evaluation.

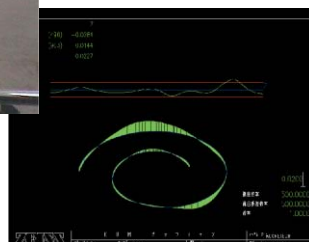


Design value collation



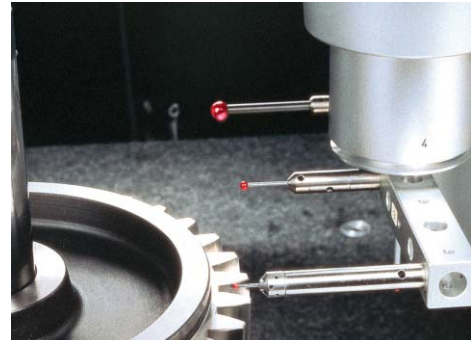
Scroll scanning measurement

Scroll bottom surface flatness

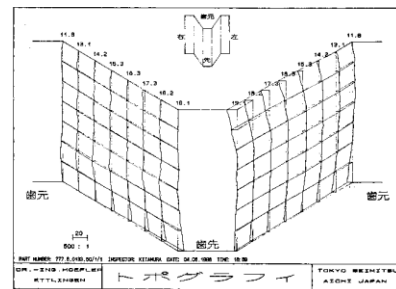


## GON : Involute Gear Measuring Program

This program is used to measure and evaluate involute flat gears and helical gears. Measurement can be automatically performed by simply entering the gear specification data. This program enables measurements without a rotary table.



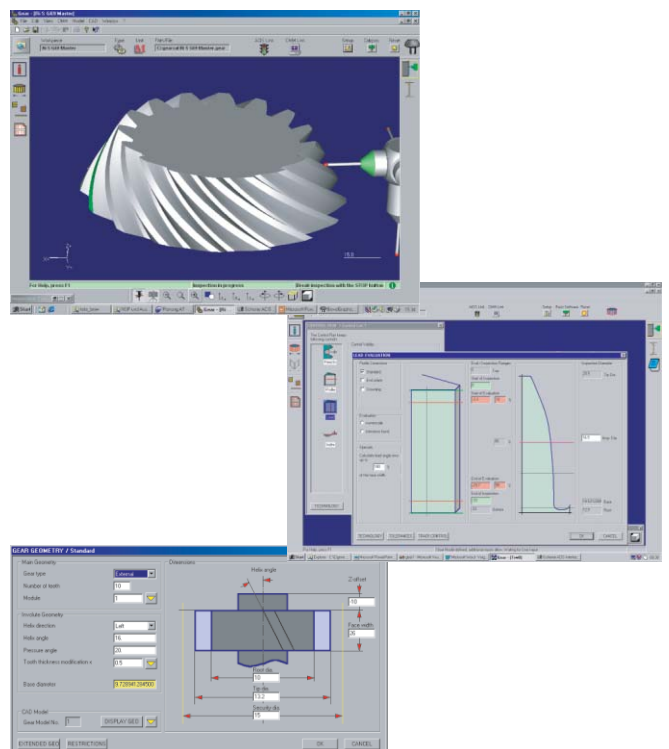
Gear measurement



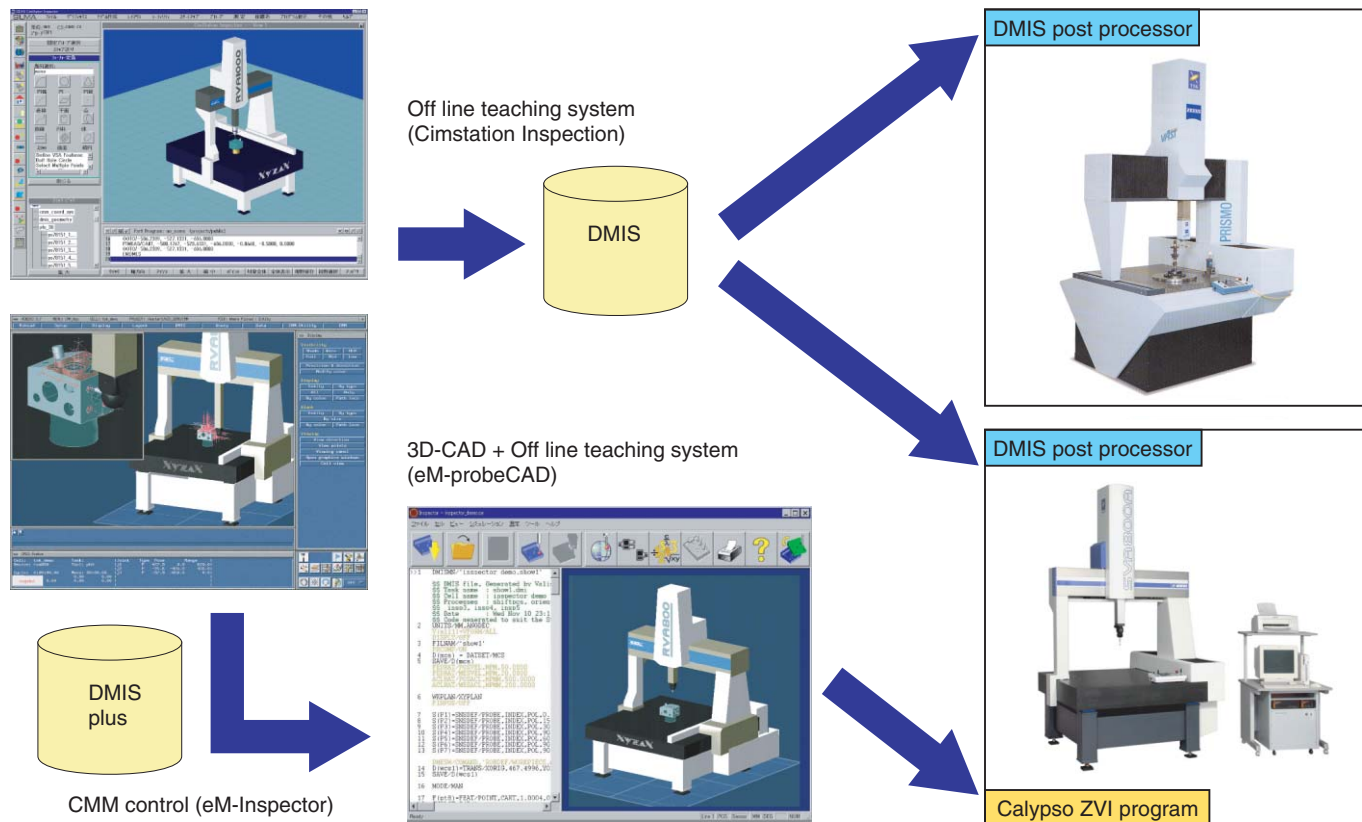
Topography analysis

## Gear-PRO

- Uses graphical user interface.
- Visualization of specifications and other input simplifies operation.
- Adopts CAD model.
- Execution of measuring simulation (off line function).



## Off Line Teaching Program



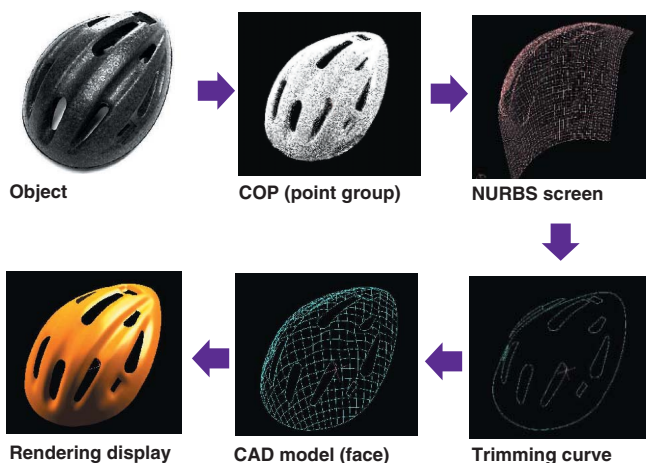
## DIMENSION Program

Regular point and surface data can be generated from irregular measured data that is obtained by probing an arbitrary surface. DIMENSION is particularly effective in digitizing unknown free curves to facilitate reverse engineering.



Variety of Editing Functions

- Trimmed surface
- Fillet generation
- Curved surface generation from COP
- Division/extension of free curved surface
- Sharing with HOLOS data



## TIMS Conversion Program

The TIMS conversion program provides a profile analysis function that allows the evaluation of data measured with KUM or Calypso-Curve.



Sample measurement with PRISMO  
Scanning measurement of 1.0 mm thick key with 0.6 mm diameter probe (Scanning of unknown profile)

Analysis results

